

OCCUPATIONAL AND ENVIRONMENTAL FACTORS RELATED TO THE INCIDENCE OF MALIGNANT MESOTHELIOMA IN THE URBAN AREA OF ROME, 2001-2009

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Background and Aims: The occurrence of malignant mesothelioma (MM) reflects past asbestos exposure at population level, both in the occupational and in the environmental settings. Our aim was to examine incidence rates of MM in Rome (2.8 million inhabitants) and in the surrounding Lazio region (5.6 million inhabitants), during the period 2001-2009, to identify etiologically relevant occupational and environmental asbestos exposures.

Methods: A population MM register has been collecting data for the period 2001-2009. Incidence rates (per 100,000) of MM in Rome and in the rest of the region were estimated. The possible asbestos exposure was also investigated by standardized interviews.

Results: We recorded 327 MM cases in Rome (219 men and 108 women) and 269 cases in the region (206 men and 63 women). Similar incidence rates were found among men in Rome (1.89; IC95% 1.66-2.16) and outside Rome (1.84 IC95% 1.60-2.11). Among women, the rate was higher in Rome (0.68, IC95% 0.56-0.82) than in the region (0.47, IC95% 0.36-0.60). Asbestos exposure was identified in 54% of the subjects (251 men and 78 women). Occupational exposure was found in 62% of men and 13% of women in Rome, in 82% of men and 3% of women in the rest of the region. The exposure was unknown in 32% of men and 74% of women in Rome and in 15% of men and in 83% of women in the region.

Conclusions: The incidence rates of MM in Rome and in the rest of the region were similar for men and higher for women. Since Rome has only a tertiary productive system, while the rest of the region had industrial complexes with occupational exposure, we suggest that the occurrence of MM in the population of Rome could be related to several occupational exposures and to unrecognized domestic and environmental conditions.